

CALUS
(Optional)

Electric batteries with spiral fin heating elements, ALBAT models

General characteristics

- Galvanized Fe plate frame. Optionally, and to order, stainless steel chassis.
- IP40 damp protection rating
- New system of connection box with flap opening without removing the lid.
- Shielded tubular heating elements in AISI 304 stainless steel of $\varnothing 10$ mm, heating element insulated with electro-smelted magnesium oxide and compressed by lamination
- Stainless steel AISI 304 fin of $\varnothing 26$ mm outside diameter
- Crimped M14 zinc steel connectors.
- M4 or M6 threaded connector depending on models
- Application temperature: air output 60°C
- Air passage speed recommended for 60°C : with $v_{\text{air}} = 3$ m/sec
- Klixon thermostat included with 85°C protection. Optionally, with 110°C thermostat
- Possibility of connecting various modules.
- 1 or 2 power stages depending on models, both in single and three phase.
- Heating elements in single voltage ~ 230 V to enable different connection options.
- Standard voltage: $3\sim 230$ V Δ , $3\sim 400$ V Y

To order, we can supply other dimensions, wattages or voltages, as well as different spiral finned heating element options.

Options:

- All stainless steel.
- Spiral fin:
 - * For tube $\varnothing 8$ mm: stainless steel fin $\rightarrow \varnothing 18, \varnothing 24$
iron fin $\rightarrow \varnothing 23$
 - * For $\varnothing 10$ mm tube: stainless steel fin $\rightarrow \varnothing 20, \varnothing 26, \varnothing 30$
iron fin $\rightarrow \varnothing 25, \varnothing 30$

Normal applications

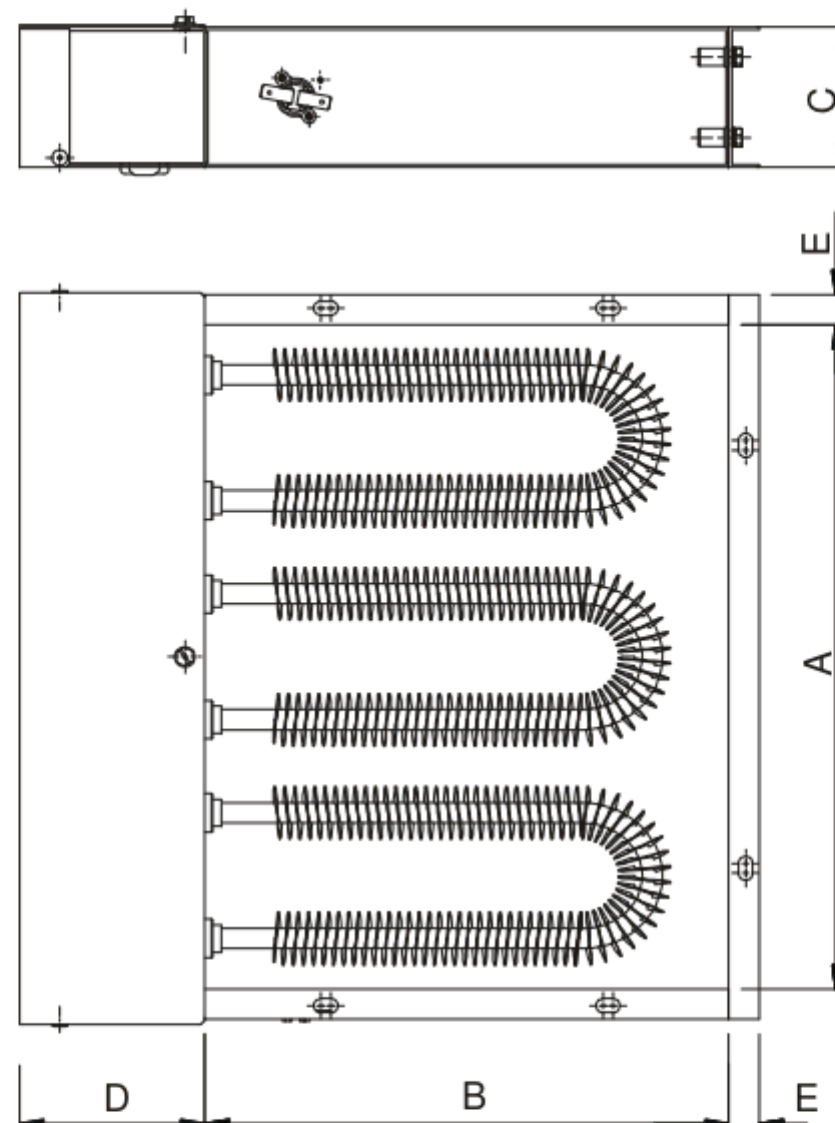
- To heat forced circulation air for heating premises, closed drying circuits in heaters, charge benches, etc. In general, for any application of forced air heating up to 200°C (Maximum temperature with $v_{\text{air}} = 4$ m/sec $\rightarrow 200^{\circ}\text{C}$).



Detail of the hinged junction box

Standard models

Code	Dimensions in mm					Watts	N° elements	Shape	N° steps
	A	B	C	D	E				
AHBAT3	330	260	70	92	15	3000 W	3	U	1
AHBAT6	330	475	70	92	15	6000 W	3	U	1
AHBAT9	330	700	70	92	15	9000 W	3	U	1
AHBAT12	550	475	160	92	15	12000 W	3	M4	1
AHBAT15	550	585	160	92	15	15000 W	3	M4	1
AHBAT18	550	700	160	92	15	18000 W	3	M4	1
AHBAT24	550	475	160	92	15	24000 W	6	M4	2
AHBAT30	550	585	160	92	15	30000 W	6	M4	2
AHBAT36	550	700	160	92	15	36000 W	6	M4	2



Note:

The drawing shows the recommended mounting position, with the junction box on one side. Vertical installation with the junction box at the top is not recommended since thermal inertia can affect the connection

GROUP 2

- Heating elements for air

2.7 – Electric batteries with rectangular fin heating elements - ALBAT



CALUS
(Optional)

ELECTRIC BATTERIES WITH RECTANGULAR FIN HEATING ELEMENTS, ALBAT MODELS

General characteristics

- Galvanized Fe plate frame. Optionally, and to order, stainless steel chassis.
- Dismountable connection box.
- Shielded tubular heating elements in AISI 304 stainless steel of Ø8 mm, heating element insulated with electro-smelted magnesium oxide and compressed by lamination
- Aluminised plate fin 25 x 50 mm.
- Crimped M12 zinc steel connectors.
- Maximum application temperature: air output 100 °C with v_{air} = 2 m/sec
- Klixon thermostat included with 75°C protection. Optionally, with 120°C thermostat
- Possibility of connecting various modules.
- 1 or 2 power stages depending on models, both in single and three phase.
- Heating elements in single voltage ~230 V to enable different connection options.
- Standard voltage: 3~230 V Δ, 3~400 V Y

To order, we can supply other dimensions, wattages or voltages, as well as different rectangular finned heating element options.

Options:

- All stainless steel.
- For Ø8mm tube: fin 25 x 50 mm
fin 40 x 70 mm
- For Ø10mm tube: fin 25 x 50 mm
fin 40 x 70 mm

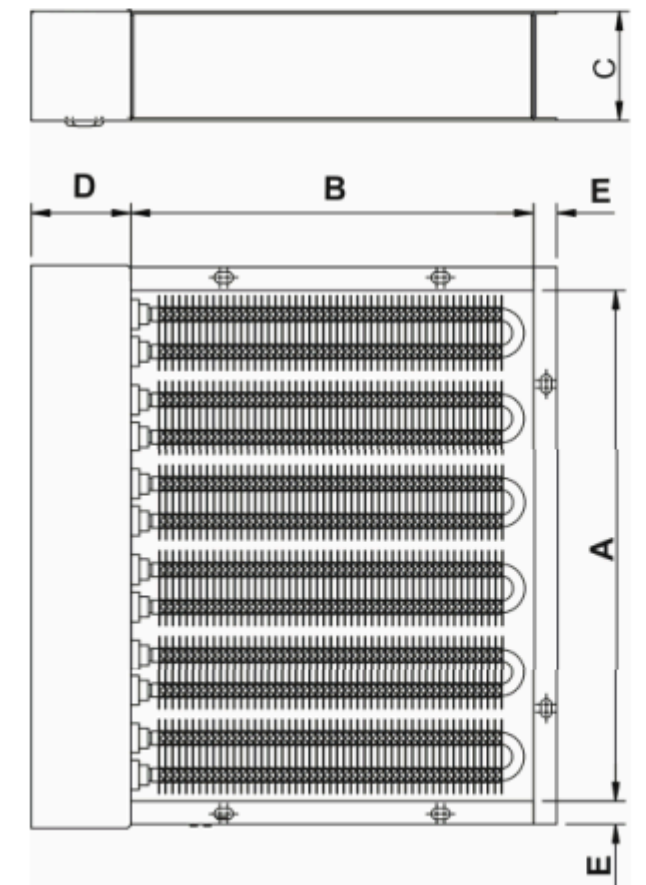
Note: : The batteries are supplied without being wired, for you to carry out the electrical assembly according to your requirements

Normal applications

- To heat forced circulation air for heating premises, closed drying circuits in heaters, charge benches, etc. In general, for any application of forced air heating up to 100 °C.

Standard models

Code	Dimensions in mm					Watts	N° elements	N° steps
	A	B	C	D	E			
ALBAT3	200	400	50	75	25	3000 W	3	1
ALBAT6	200	400	75	75	25	6000 W	6	2
ALBAT9	450	400	75	75	25	9000 W	9	3
ALBAT12	450	400	100	75	25	12000 W	12	4
ALBAT15	450	400	100	75	25	15000 W	15	5
ALBAT18	450	400	100	75	25	18000 W	18	6
ALBAT21	450	400	100	75	25	21000 W	21	7
ALBAT24	450	400	100	75	25	24000 W	24	8
ALBAT13,5	450	500	75	75	25	13500 W	9	3
ALBAT22,5	450	500	75	75	25	22500 W	15	5
ALBAT27	450	500	100	75	25	27000 W	18	6



Note:

The drawing shows the recommended mounting position, with the junction box on one side. Vertical installation with the junction box at the top is not recommended since thermal inertia can affect the connection

Accessories for ALBAT battery standardised models

Code	Description
517541075	Thermostat klixon 75 °C — Loose
1017000000	Thermostat klixon 75 °C. Mounted with tube and connector



GROUP 2

- Heating elements for air

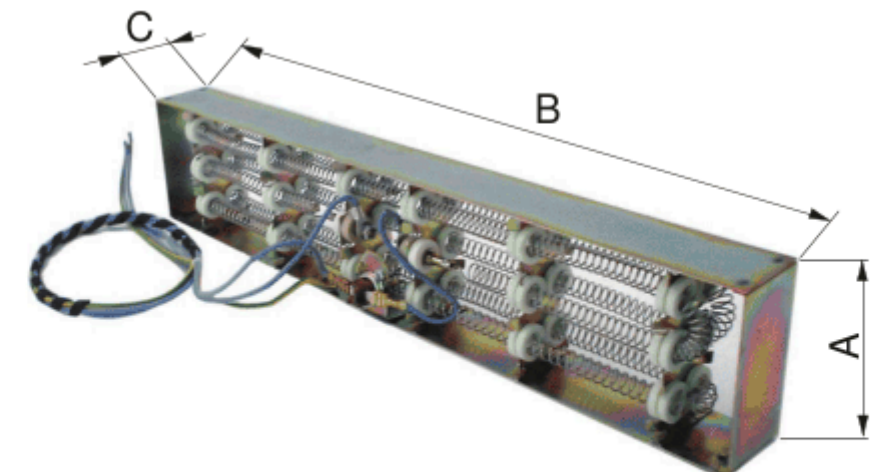
2.8 – Electric batteries for air conditioning - BSMC / MNS

ELECTRIC BATTERIES FOR AIR CONDITIONING MINI SOPOR, BSMC and MNS RANGES

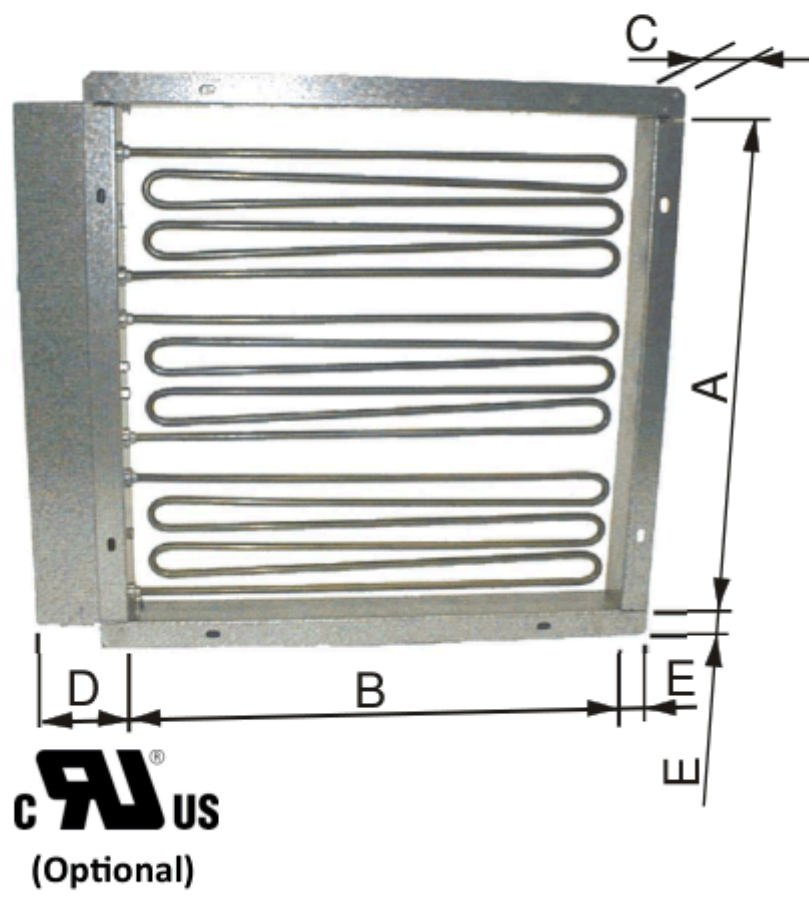
Small dimension batteries for window air conditioners or small ducts.

General characteristics

- Chassis in gavanized steel. On order, chassis in stainless steel.
- Heating elements with exposed coil of quality 80-20 Nickel-Chrome, supported by steatite wall insulators.
- Cable and earth connection of 500 mm long.
- They can work at minimum speeds of 2,5 m/sec.
- Built-in thermostat of 85 °C.
- Standard voltage ~230 V



Code	Dimensions in mm			Volts	Watts	Weight in Kg
	A	B	C			
BSMC2	160	260	30	~230	2000	0,63
BSMC2,5	160	260	30	~230	2500	0,63
BSMC3	160	260	30	~230	3000	0,65
MNS3,1	88	415	40	~230	3100	0,70
MNSMRC4	88	680	25	~230	3600	0,81
MNSMRL3	88	755	25	~230	3000	0,81

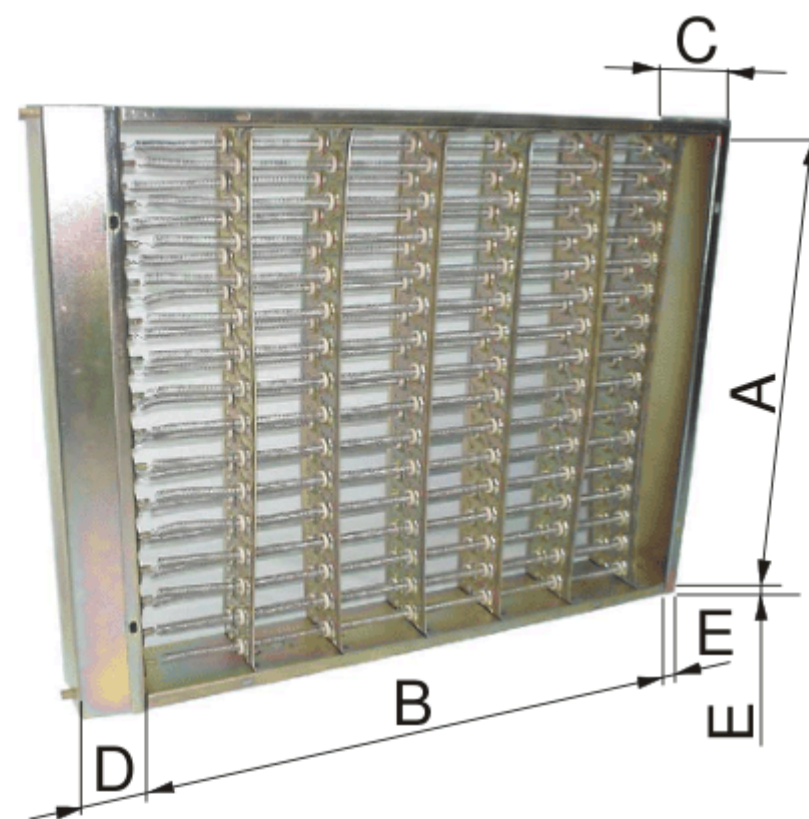


ELECTRIC BATTERIES FOR AIR CONDITIONING, MODUL-BAT RANGE

General characteristics

- Chassis in gavanized steel. On order, chassis in stainless steel.
- Tubular elements of stainless steel AISI 304L or AISI 321 Ø8 mm, insulated with electromelted and lamination-compressed magnesium oxide.
- Maximum air discharge temperature of 60 °C
- Built-in thermostat of 75 °C. Optionally, with thermostat of 110 °C
- From one to three modules may be coupled to provide from 4 to 30 kW. By combining these double or triple modules in a rack, a maximum of 120 kW may be attained.
- Standard voltage
3~230 V Δ, 3~400 V Y

Code	Dimensions in mm					Watts	N° Steps	Weight in Kg
	A	B	C	D	E			
MB4	450	450	50	82	25	4000	1	3,8
MB6	450	450	50	82	25	6000	1	3,8
MB8	450	450	50	82	25	8000	1	3,8
MB10	450	450	50	82	25	10000	1	4,3



ELECTRIC BATTERIES FOR AIR CONDITIONING, MODUL-SOPOR and MODUL-SOPOR REINFORCED RANGES

General characteristics

- Chassis, cover and dividers in galvanized steel. On order, chassis in stainless steel.
- Heating elements with exposed coil of quality 80-20 Nickel-Chrome, supported by steatite wall insulators.
- Maximum air discharge temperature of 60 °C.
- Built-in thermostat of 75 °C. Optionally, with thermostat of 110 °C.
- Standard voltage 3~230 V Δ, 3~400 V Y

Models MODUL-SOPOR

Code	Dimensions in mm					Watts	N° Steps	Weight in Kg
	A	B	C	D	E			
MSP4	330	330	70	46	12	4000	3	2,6
MSP5	330	330	70	46	12	5000	3	2,6
MSP6	330	330	70	46	12	6000	3	2,6
MSPR9	330	330	70	46	12	9000	4	2,6
MSPR12	330	330	70	46	12	12000	4	2,7
MSM8	330	610	70	46	12	8000	3	3,6
MSM10	330	610	70	46	12	10000	3	3,6
MSM12	330	610	70	46	12	12000	3	3,6
MSG10	445	610	70	46	12	10000	4	4,5
MSG14	445	610	70	46	12	14000	4	4,5
MSG16	445	610	70	46	12	16000	4	4,5
MSC15	456	620	70	46	10	15000	1	5,6
MSL36	456	1200	70	46	10	36000	2	10,8

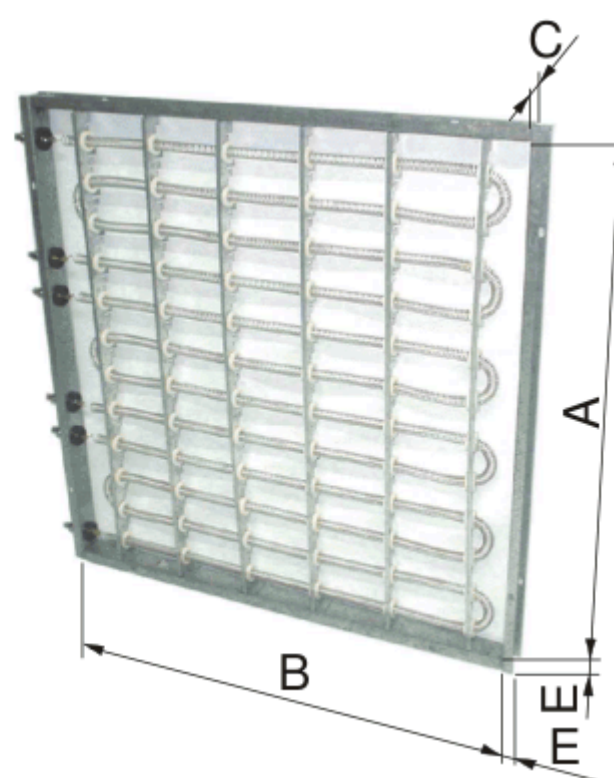
Models MODUL-SOPOR REINFORCED

Code	Dimensions in mm					Watts	N° Steps	Weight in Kg
	A	B	C	D	E			
MSRP3	164	350	70	46	12	3000	2	1,8
MSRP4,5	164	350	70	46	12	4500	2	1,8
MSRP6	164	350	70	46	12	6000	2	1,8
MSRM15	387	470	70	46	12	15000	5	4,2
MSRM17	387	470	70	46	12	17000	5	4,2
MSRM20	387	470	70	46	12	20000	5	4,2
MSRG32	536	800	70	46	12	32000	7	7,5
MSRG40	536	800	70	46	12	40000	7	7,5
MSRG48	536	800	70	46	12	48000	7	8,5
MSRI4	250	310	70	46	10	4000	1	2,2
MSRI6	250	310	70	46	10	6000	1	2,2
MSRI9	250	310	70	46	10	9000	1	2,2
MSRI12	250	310	70	46	10	12000	1	2,3
MSRL15	320	420	70	46	10	15000	1	3,3

ELECTRIC BATTERIES FOR AIR CONDITIONING, BACTI-SOPOR RANGE

General characteristics

- Chassis, cover and dividers in galvanized steel. On order, chassis in stainless steel.
- Arranged in a single row, the heating elements are with exposed coil of quality 80-20 Nickel-Chrome, supported by steatite wall insulators.
- Maximum air discharge temperature of 60 °C.
- Built-in thermostat of 75 °C. Optionally, with thermostat of 110 °C.
- Besides the usual combinations of one behind the other, one beside the other, or horizontally joined, it is also possible to combine 1 or 2 BTSM modules with 1 or more BTSM modules to obtain assemblies of 1, 2, 3, 4 or 4 stages. Request the Technical Notice NTC-681.
- Standard voltage 3~230 V Δ, 3~400 V Y



Code	Dimensions in mm				Watts	N° Steps	Weight in Kg
	A	B	C	E			
BTSP2	228	478	27	11	2000	1	1,2
BTSP3	228	478	27	11	3000	1	1,2
BTSP4	228	478	27	11	4000	1	1,2
BTSP5	228	478	27	11	5000	1	1,2
BTSP6	228	478	27	11	6000	1	1,2
BTSM4	478	478	27	11	4000	1	1,6
BTSM6	478	478	27	11	6000	1	1,6
BTSM10	478	478	27	11	10000	1	1,7
BTSM12	478	478	27	11	12000	1	1,8
BTSL2	228	678	27	11	2000	1	1,5
BTSL4	228	678	27	11	4000	1	1,5
BTSL5	228	678	27	11	5000	1	1,5
BTSL6	228	678	27	11	6000	1	1,5
BTSL7,5	228	678	27	11	7500	1	1,6
BTSL9	228	678	27	11	9000	1	1,6



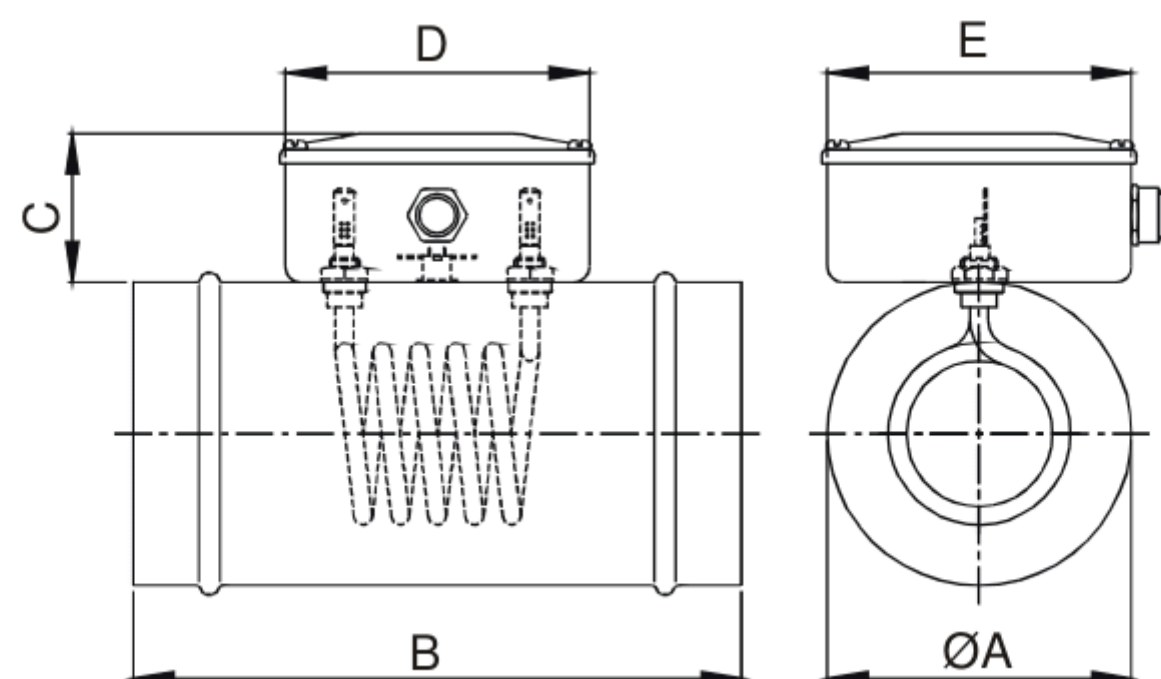
General characteristics

- Class I electrical heater
- Steel painted connections box with degree protection against moisture IP44
- Cylindrical pipe galvanised steel sheet. On order, in stainless steel
- PG for power supply and control cables.
- From 1 to 6 tubular elements in stainless steel tube AISI 321 or AISI 304L of \varnothing 6.4 mm for the single-phase models and \varnothing 8 mm for the three-phase models.
- Built-in safety thermostat of 85°C. On order we can supply a safety thermostat of 110°C.
- 1 or 2 power stages according to models, in both single-phase and three-phase groups.
- Heating elements in unitary voltage \sim 230V in order to make the different connection options easier.
- High resistance to impacts and splashes of water.



Mono-phase models. BMC

Code	Watts		Dimensions in mm					Weight in Kg
	Min.	Máx.	$\varnothing A$	B	C	D	E	
BMC80-0,5		500	80	200	49	105	105	0,70
BMC100-0,5		500	100	200	49	105	105	0,82
BMC100-0,8		800	100	200	49	105	105	0,82
BMC125-0,75		750	125	250	49	105	105	0,97
BM2C125-1	500	1000	125	300	83	206	156	1,8
BM2C160-1,2	600	1200	160	300	83	206	156	2,1
BMC200-1,7		1700	200	250	49	105	105	1,4
BM2C200-2,25	1125	2250	200	300	83	206	156	2,4

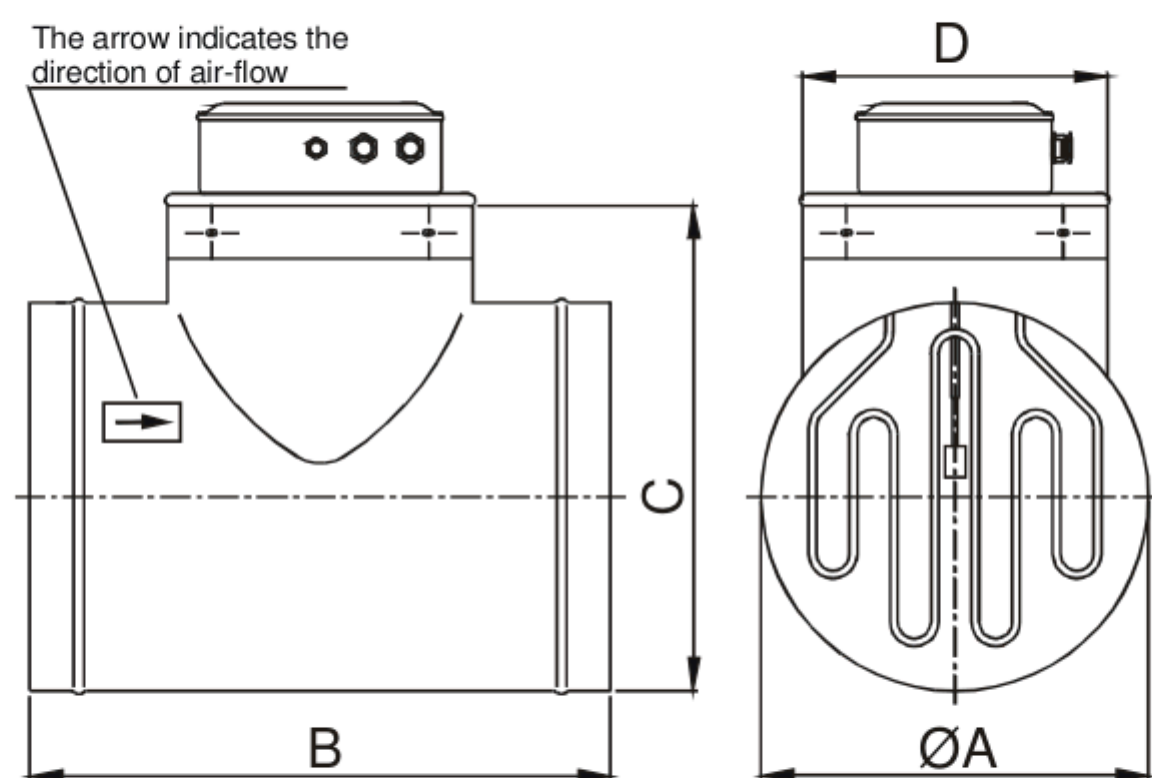


Standard voltage: \sim 230 V

Three-phase models. BTT

Set of battery of heating elements + "T" of nominal \varnothing

Code	Watts		N° elements	Dimensions in mm				Weight in Kg
	Min.	Máx.		$\varnothing A$	B	C	D	
BTT160-1,5	250	1500	6	160	340	260	160	3,5
BTT200-3	500	3000	6	200	390	300	200	5,1
BTT250-4,5	750	4500	6	250	440	350	250	6,1
BTT315-6	2000	6000	3	315	490	415	315	6,7
BTT315-9	1500	9000	6	315	490	415	315	7,6
BTT355-9	1500	9000	6	355	490	455	355	7,9
BTT355-12	4000	12000	3	355	490	455	355	8,2
BTT400-15	2500	15000	6	400	600	500	315	9,8



- Standard voltage 3 \sim 230 V Δ , 3 \sim 400 V Y
- By a simple change in the connection box, we can obtain a wide range of power in each model, from the minimum to a maximum indicated

Spare parts for the three-phase models BTT

Batteries without "T"

Code	Watts		N° elements	For $\varnothing A$ in mm
	Maximum	Minimum		
BTCC1,5	1500	250	6	160
BTCC3	3000	500	6	200
BTCC4,5	4500	450	6	250
BTCC6	6000	2000	3	315
BTCC9	9000	1500	6	315
BTCC9A	9000	1500	6	355
BTCC12	12000	4000	3	355
BTCC15	15000	2500	6	400

Unit elements

Code	Watts	W/cm ²	For $\varnothing A$ in mm	Electricfor's constructive thermic class
130540003	250	2,7	160	T-600-S
130540002	500	2,6	200	T-600-S
130540001	750	3,8	250	T-600-S
130540004	2000	3,3	315	T-600-S
130540000	1500	3,6	315 355	T-600-S
130540005	4000	3,8	355	T-600-S
130540006	2500	4,6	400	T-600-S

"T" of nominal \varnothing

Code	$\varnothing A$ in mm
130540104	160
130540103	200
130540102	250
130540101	315
130540100	355
130540105	400

General characteristics

- Heating of air to:
 - 250 °C TFAN models
 - 600 °C Made to order

NOTE: The above temperatures refer to recirculated air systems with thermal insulation. Note that the final heating temperature may vary in accordance with the system's operating conditions (recirculation of air or not, the material being heated, losses of heat, etc). Our technical department is at your service to assist in the selection of the most appropriate battery for any given situation.

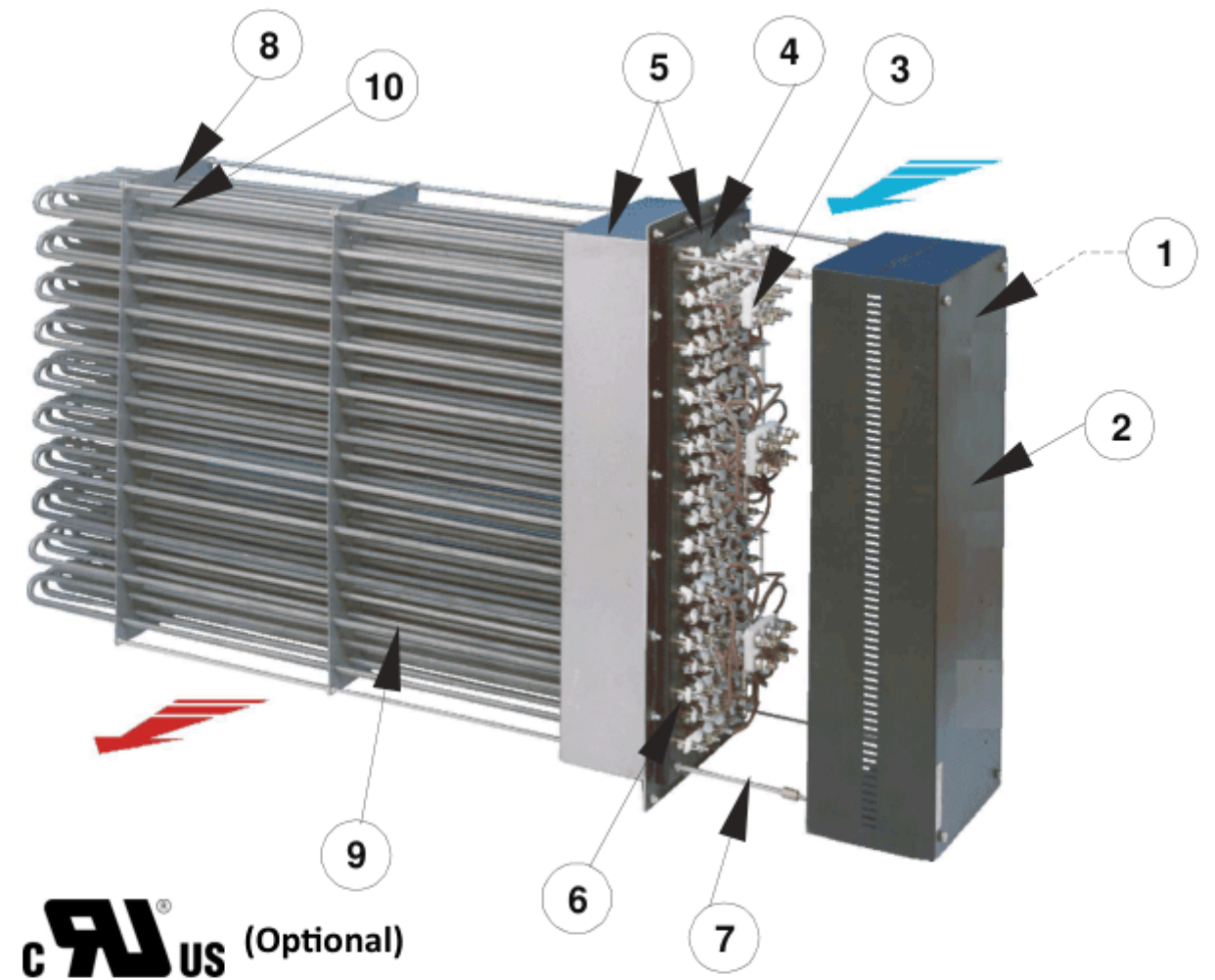
- Minimum air speed for all models: 2 m/sec
- Easily interchangeable heating elements
- Other wattage, voltages, and dimensions are available on request.
- Manufactured in compliance with the EN 60335-1 standard.
- Triphase power supply 3 ~ 400 V Y with earth connection (*).

(*)The TFAN batteries are supplied connected at the stated voltage. Optionally, they may be supplied connected for an operating voltage of 3 ~ 230 V Δ . If this is required, please state so in your order.

Technical characteristics of construction

- 1 From one to three stuffing boxes per heat stage, plus a stuffing box for control components.
- 2 Steel connection cover, with oven treated paint resistant to temperatures of up to 250 °C without deterioration.
- 3 From one to three steatite connection boards, one per stage. Nickel-plated internal connection bridges.
- 4 Bases for securing heating elements with tightening screws.
- 5 Mineral fibre insulation (in base box and drawer).
- 6 Steel base box for heating elements, with oven treated paint resistant to temperatures of up to 250 °C without deterioration, and stainless steel inner box.
- 7 Stainless steel bars for securing final guide base and tightening of cover.
- 8 Stainless steel final guide for supporting the heating elements.
- 9 Tubular elements in Ø10 mm AISI 321 or 304L. stainless steel tube, in alignments of 6 heating elements at ~230 V with wattage of 1000 W
- 10 Thermocouple probe Ø 6 Ni Cr / Ni Al (K type) with 3000 mm long compensating cables.

Option all in stainless steel: If you require, we can supply the TFAN models with connection cover (2), big box and base box for heating elements (5) all in stainless steel.

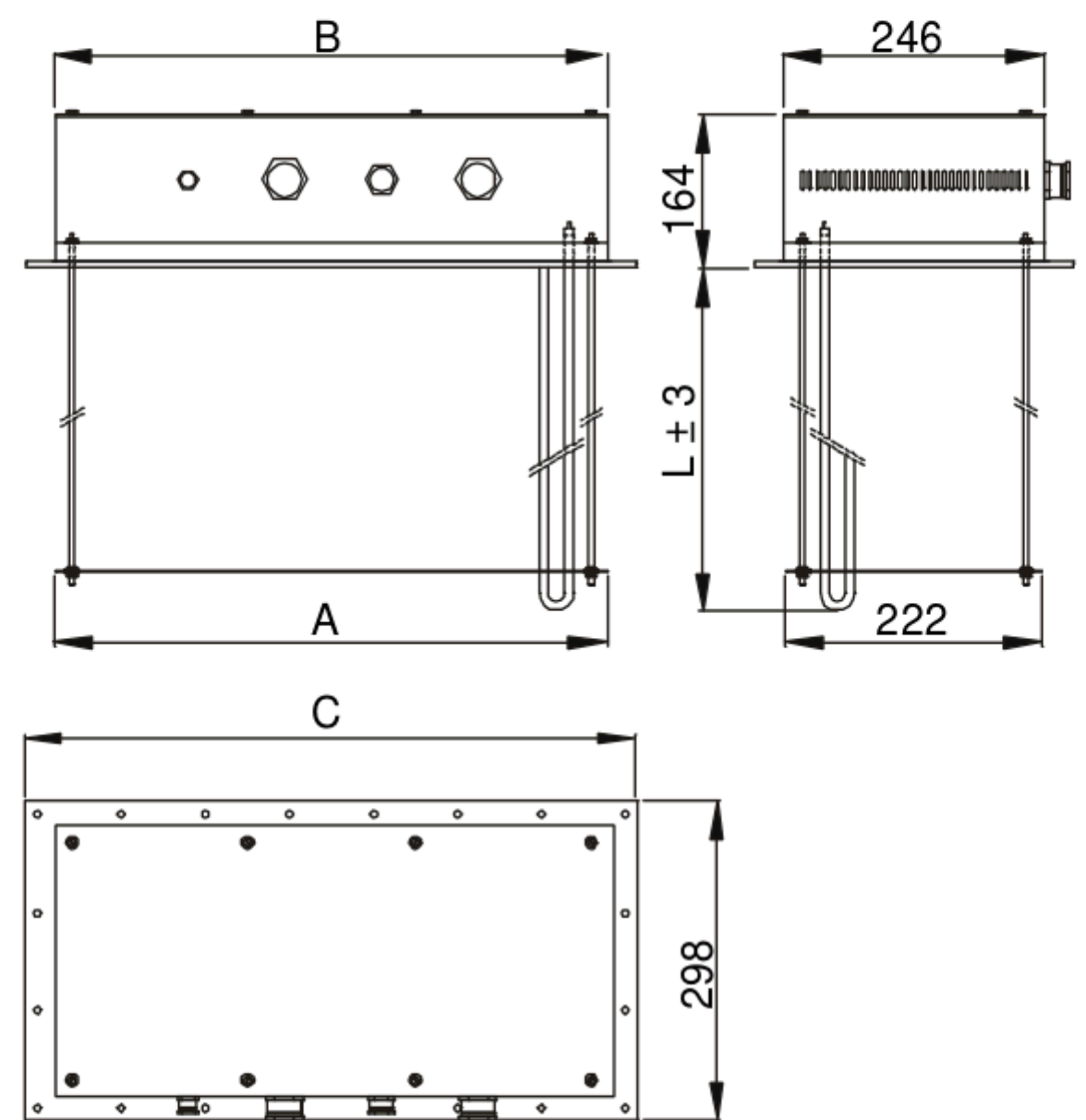


MODELS TFAN

Models available with elements in stainless steel tube AISI 321 Ø10 mm

Code	Watts kW	N° elements	N° steps	Dimensions in mm				Weight in Kg
				A	B	C	L	
TFAN6	6	6	1 of 6 KW	90	118	162	440	6,3
TFAN12	12	12	1 of 12 KW	150	178	222	440	9,8
TFAN18	18	18	1 of 6 KW 1 of 12 KW	210	238	282	440	13,2
TFAN24	24	24	2 de 12 KW	270	296	343	440	16,7
TFAN30	30	30	1 of 6 KW 2 of 12 KW	330	352	404	440	20,1
TFAN36	36	36	3 of 12 KW	390	416	464	440	23,6
TFAN42	42	42	2 of 12 KW 1 of 18 KW	450	472	524	440	27,0
TFAN48	48	48	1 of 12 KW 2 of 18 KW	510	532	584	440	30,5
TFAN54	54	54	1 of 12 KW 1 of 18 KW 1 of 24 KW	570	592	644	440	33,9
TFAN60	60	60	1 of 12 KW 2 of 24 KW	630	652	704	440	37,4

DIMENSIONS MODELS TFAN



Note: Batteries TFAN incorporate a thermocouple type "K" with aerial male connector and female bayonet. Although for some applications they aren't necessary, Electricfor recommends to install always minimum a sobretemperature sensor (sensor-regulator) and a flow switch.

Sensor temperature type "K" for TFAN batteries

Code	Description	Dimensions in mm
517380000	Type K sensor with aerial male connector and female bayonet connector	Ø6 x 475

General characteristics

- Heating of air to:
 - 450 °C **TFMAX and TMAXL models**
 - 600 °C **Made to order**

NOTE: The above temperatures refer to recirculated air systems with thermal insulation. Note that the final heating temperature may vary in accordance with the system's operating conditions (recirculation of air or not, the material being heated, losses of heat, etc). Our technical department is at your service to assist in the selection of the most appropriate battery for any given situation.

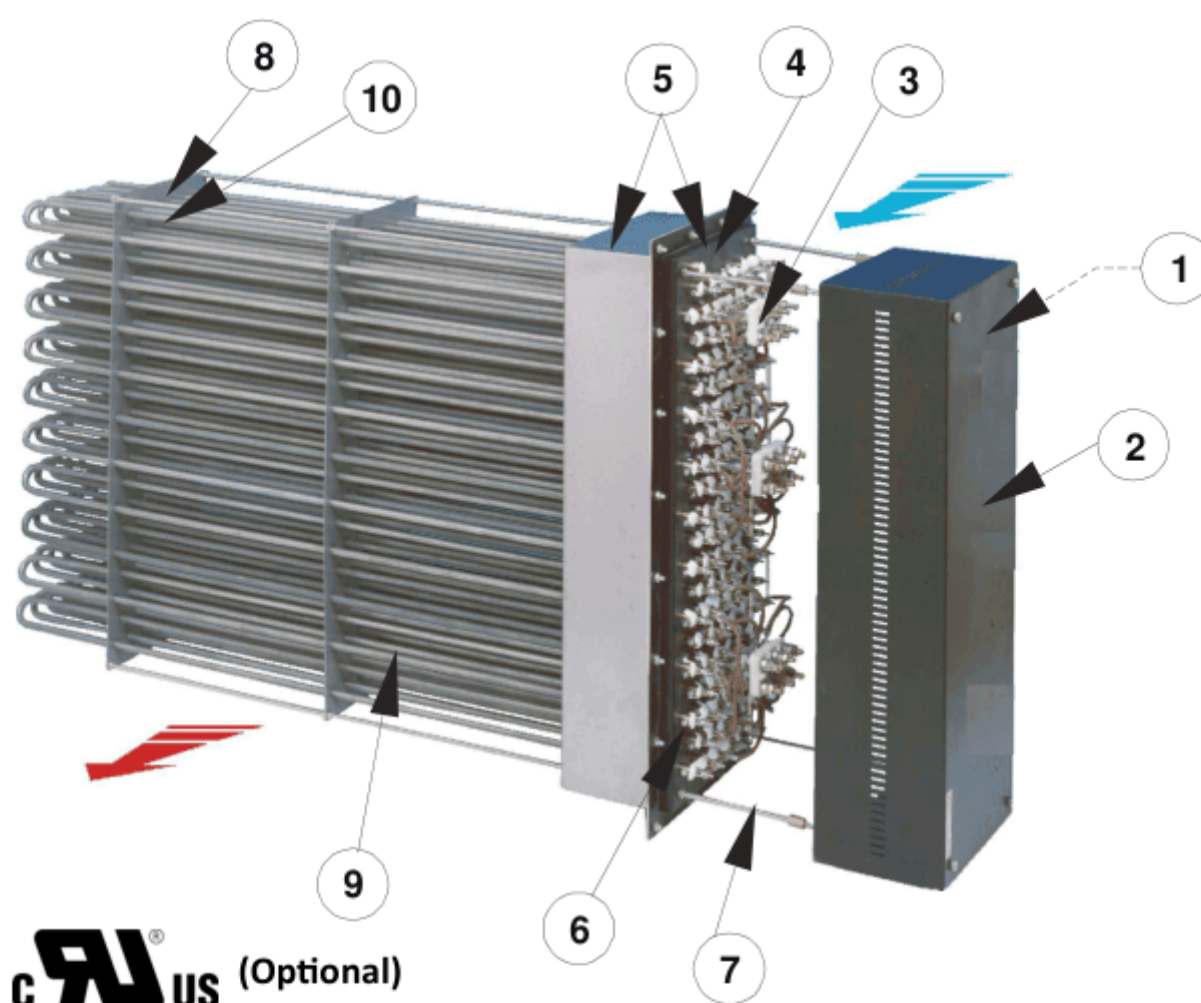
- Minimum air speed for all models: 2 m/sec
- Easily interchangeable heating elements
- Other wattage, voltages, and dimensions are available on request.
- Manufactured in compliance with the EN 60335-1 standard.
- Triphase power supply 3 ~ 400 V Y with earth connection (*).

(*) The TMAX and TMAXL batteries are supplied connected at the stated voltage. Optionally, they may be supplied connected for an operating voltage of 3 ~ 230 V Δ . If this is required, please state so in your order.

Technical characteristics of construction

- 1 From one to three stuffing boxes per heat stage, plus a stuffing box for control components.
- 2 Steel connection cover, with oven treated paint resistant to temperatures of up to 250 °C without deterioration.
- 3 From one to three steatite connection boards, one per stage. Nickel-plated internal connection bridges.
- 4 Bases for securing heating elements with tightening screws.
- 5 Mineral fibre insulation (in base box and drawer).
- 6 Steel base box for heating elements, with oven treated paint resistant to temperatures of up to 250 °C without deterioration, and stainless steel inner box.
- 7 Stainless steel bars for securing final guide base and tightening of cover.
- 8 Stainless steel final guide for supporting the heating elements. In TMAXL models additional middle support.
- 9 Tubular elements in Ø10 mm AISI 321 or 304L. stainless steel tube, in alignments of 6 heating elements at ~230 V with wattage 750 W (TMAX models) or 1500 W (TMAXL models) each. In stock for TMAX and TMAXL models with Ø10mm Incoloy®-800 stainless steel heating elements.
- 10 Optional: thermocouple probe Ø 6 Ni Cr / Ni Al (K type) with 3000 mm long compensating cables.

Option all in stainless steel: If you require, we can supply the TMAX and TMAXL models with connection cover (2), big box and base box for heating elements (5) all in stainless steel.

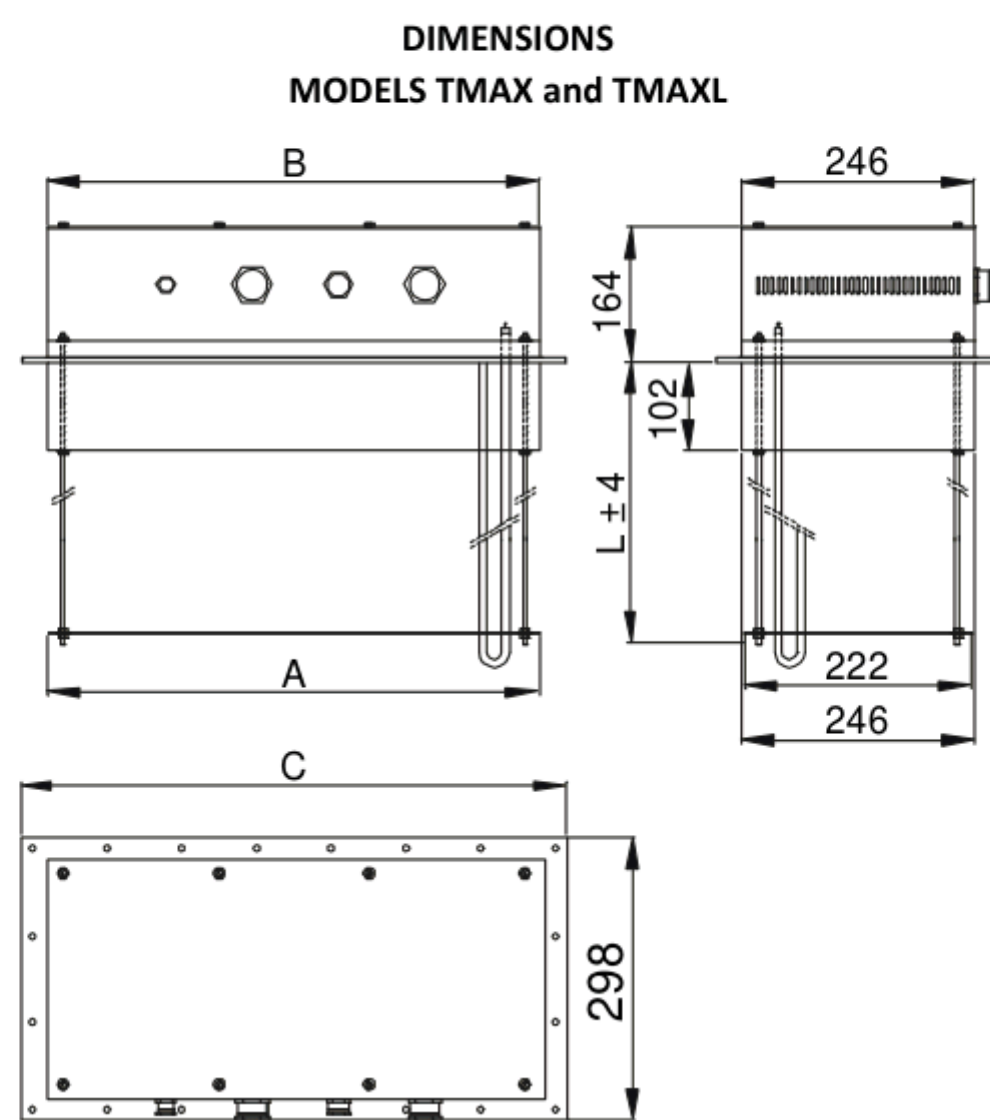


MODELS TMAX
Models available with elements in stainless steel tube
AISI 321 Ø10 mm or Incoloy®-800 Ø10 mm

Code	Watts kW	N° elements	N° steps	Dimensions in mm				Weight in Kg
				A	B	C	L	
TMAX9	9	12	1 of 9 KW	172	172	222	542	12,4
TMAX13,5	13,5	18	1 of 4,5 KW 1 of 9 KW	232	232	282	542	16,4
TMAX18	18	24	2 of 9 KW	292	292	343	542	20,4
TMAX22,5	22,5	30	1 of 4,5 KW 2 of 9 KW	352	352	404	542	24,3
TMAX27	27	36	3 of 9 KW	412	412	464	542	28,3
TMAX31,5	31,5	42	2 of 9 KW 1 of 13,5 KW	472	472	524	542	32,3
TMAX36	36	48	1 of 9 KW 2 of 13,5 KW	532	532	584	542	36,3
TMAX40,5	40,5	54	1 of 9 KW 1 of 13,5 KW 1 of 18 KW	592	592	644	542	40,2
TMAX45	45	60	1 of 9 KW 2 of 18 KW	652	652	704	542	44,2

MODELS TMAXL
Models available with elements in stainless steel tube
AISI 321 Ø10 mm or Incoloy®-800 Ø10 mm

Code	Watts kW	N° elements	N° steps	Dimensions in mm				Weight in Kg
				A	B	C	L	
TMAXL18	18	12	1 of 18 KW	172	172	222	962	16,7
TMAXL27	27	18	1 of 9 KW 1 of 18 KW	232	232	282	962	22,8
TMAXL36	36	24	2 of 18 KW	292	292	343	962	28,9
TMAXL45	45	30	1 of 9 KW 2 of 18 KW	352	352	404	962	35,0
TMAXL54	54	36	3 of 18 KW	412	412	464	962	41,1
TMAXL63	63	42	2 of 18 KW 1 of 27 KW	472	472	524	962	47,2
TMAXL72	72	48	1 of 18 KW 2 of 27 KW	532	532	584	962	53,3
TMAXL81	81	54	1 of 18 KW 1 of 27 KW 1 of 36 KW	592	592	644	962	59,4
TMAXL90	90	60	1 of 18 KW 2 of 36 KW	652	652	704	962	65,5



Note: Batteries TMAX and TMAXL incorporates a thermocouple type "K" with aerial male connector and female bayonet. Although for some applications they aren't necessary, Electricfor recommends to install always minimum a sobretemperature sensor (sensor-regulator) and a flow switch..

Sensor temperature type "K" for TMAX and TMAXL

Code	Description	Dimensions in mm
517381000	Type K sensor with aerial male connector and female bayonet connector. For TMAX models	Ø6 x 575
517382000	Type K sensor with aerial male connector and female bayonet connector. For TMAXL models	Ø6 x 975

GROUP 2 - Heating elements for air

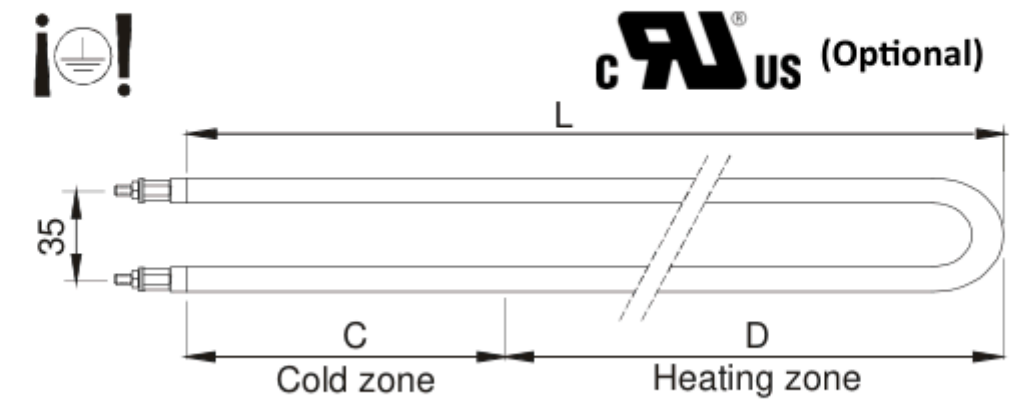
2.11 – Heating elements for ovens and furnaces - UTFAN / UTMAX / TMAXL

General characteristics

- Heating of air to:
 - 250 °C UTFAN models
 - 450 °C UTMAX and UTMAXL models
 - 600 °C UTMAXIN and UTMAXLIN models
- Minimum air speed for all models: 2 m/sec
- Tubular elements in stainless steel tube AISI 321 or 304L of Ø10 mm. In stock for the TMAX and TMAXL models, tubular elements in Incoloy®-800 of Ø10 mm
- Standard voltage ~230 V
- Option: Stainless steel crimped connector of M14x1,25 mm

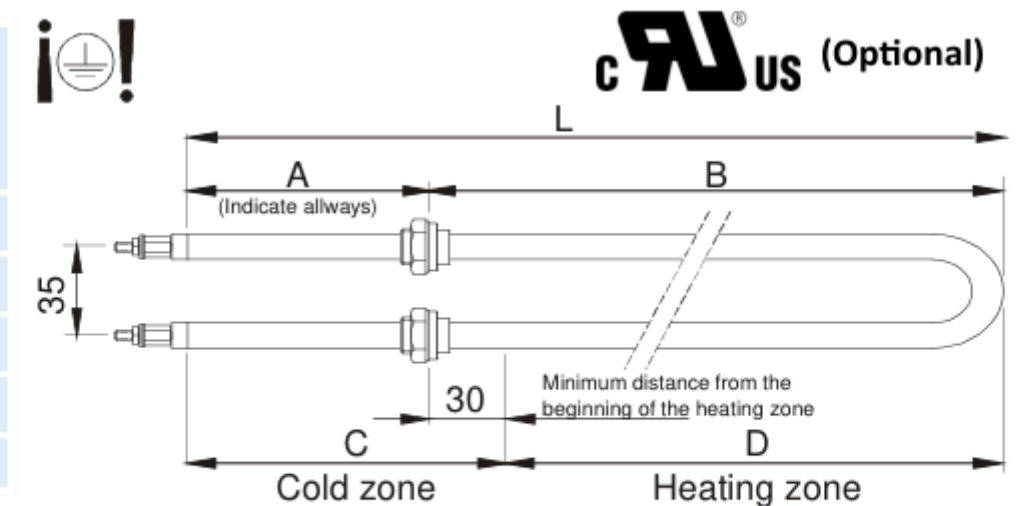
Option WITHOUT crimped connectors

Code	Dimensions in mm			Watts	W/cm ²	Tube material	Electricfor's constructive thermic class	Weight in Kg
	C	D	L					
UTFAN1	93	420	513	1000	3,9	AISI 321	T-700-T	0,45
UTMAX0,75	187	420	607	750	3,1	AISI 321	T-700-T	0,53
UTMAXL1,5	187	840	1027	1500	3	AISI 321	T-700-T	0,90
UTMAXIN0,75	187	420	607	750	3,1	Iy®-800	T-850-T	0,53
UTMAXLIN1,5	187	840	1027	1500	3	Iy®-800	T-850-T	0,90



Option WITH stainless steel crimped connectors of M14x1,25

Code	Dimensions in mm					Watts	W/cm ²	Tube material	Electricfor's constructive thermic class	Weight in Kg
	A (*)	B	C	D	L					
UTFAN1RI	73	440	93	420	513	1000	3,9	AISI 321	T-700-T	0,50
UTMAX0,75RI	167	440	187	420	607	750	3,1	AISI 321	T-700-T	0,58
UTMAXL1,5RI	167	860	187	840	1027	1500	3	AISI 321	T-700-T	0,95
UTMAXIN0,75RI	167	440	187	420	607	750	3,1	Iy®-800	T-850-T	0,58
UTMAXLIN1,5RI	167	860	187	840	1027	1500	3	Iy®-800	T-850-T	0,95



- (*) Dimension A according to your order. You must indicate it in all the orders of this material. The maximum value of the dimension A is the value indicate in the table.

GROUP 2 - Heating elements for air

2.12 – Heating elements for ovens and furnaces - M8GRK

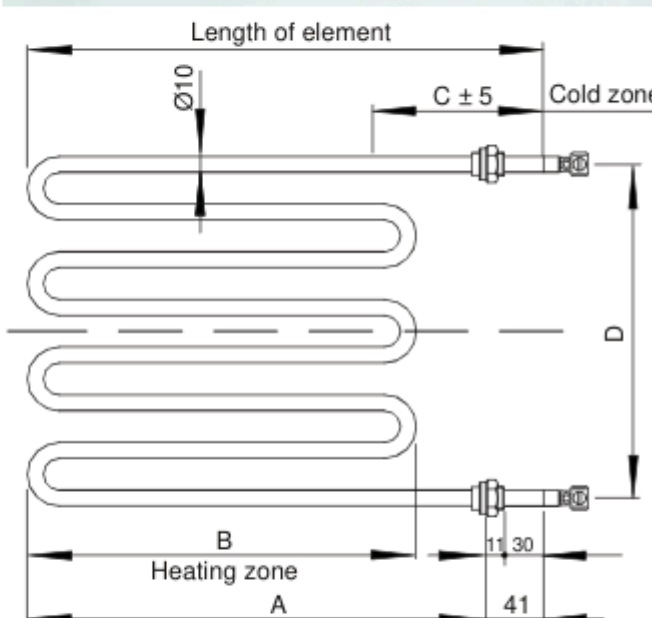


General characteristics

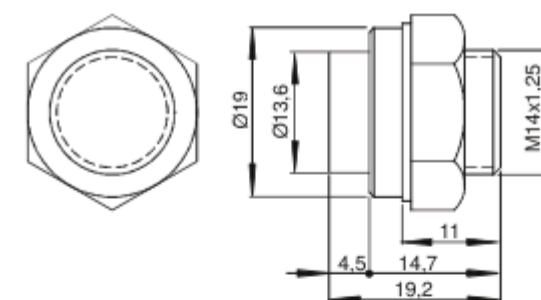
- Tubular elements in stainless steel tube AISI 321 or 304L of Ø10 mm, insulated with electromelted and lamination-compressed magnesium oxide
- Terminals BM4-P (Thread M4)
- Zinc-plated steel crimped connectors, thread M14x1'25 mm
- Standard voltage ~230 V

Applications

- Air conditioning
- Recirculated air heaters
- Static air heaters
- Black heat
- Textile industrial heating
- Trichloroethylene vapor reheating
- Shrink plastic ovens
- Ovens in general
- Dryers
- Air heaters
- Hot air convectors
- Chemical reactors



Dimensions of the M14x1'25 crimped connector



Relationship between the maximum atmospheric temperature of the furnace or oven in the heating element area (where a safety sensor should be installed) and the load of the heating elements in W/cm².

Consult our temperature regulator: pages 117, 118 and 119 of this catalogue.

W/cm ²	Still Air	Recirculated air at 1 m/s. In heating elements zone	Recirculated air at 2 m/s. In heating elements zone	Recirculated air at 3 m/s. In heating elements zone	Recirculated air at 4 m/s. In heating elements zone
1,8	450 °C.	500 °C	530 °C	560 °C	580 °C
2,5 a 3,1	350 °C.	380 °C	430 °C	470 °C	500 °C
4,1 a 4,7	Max. Temp. amb. 80 °C.	175 °C	275 °C	340 °C	400 °C

Maximum ambient temperature in heating element zone.

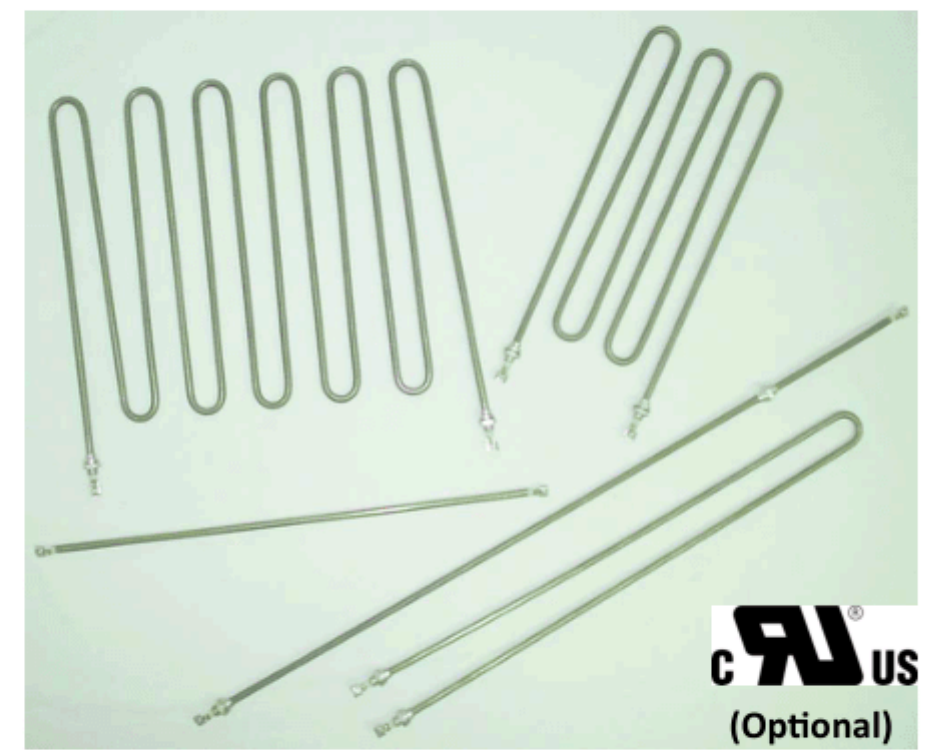
IMPORTANT NOTE: The atmospheric temperature inside the furnace or oven chamber will always be 25-350°C lower than in the heater element area depending on good air circulation, loads of material and frequency of loads.

General characteristics

- Tubular elements in stainless steel tube AISI 321 or 304L of Ø8 mm, insulated with electromelted and lamination-compressed magnesium oxide
- Terminals BM4-P (Thread M4)
- Zinc-plated steel crimped connectors, thread M14x1'25 mm
- Standard voltage ~230 V

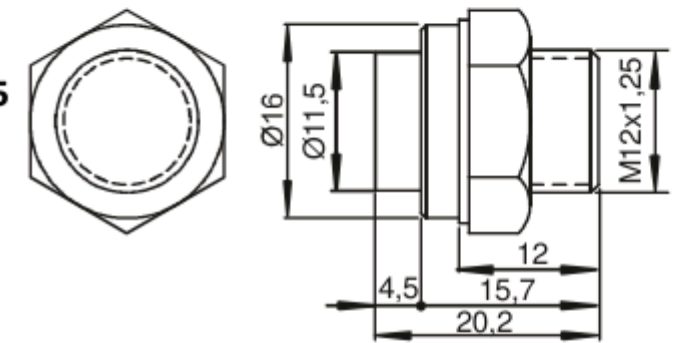
Usual applications

- Air conditioning
- Recirculated air heaters
- Static air heaters
- Black heat
- Textile industrial heating
- Trichloroethylene vapor reheating
- Shrink plastic ovens
- Ovens in general
- Dryers
- Air heaters
- Hot air convectors
- Chemical reactors



CAUS
(Optional)

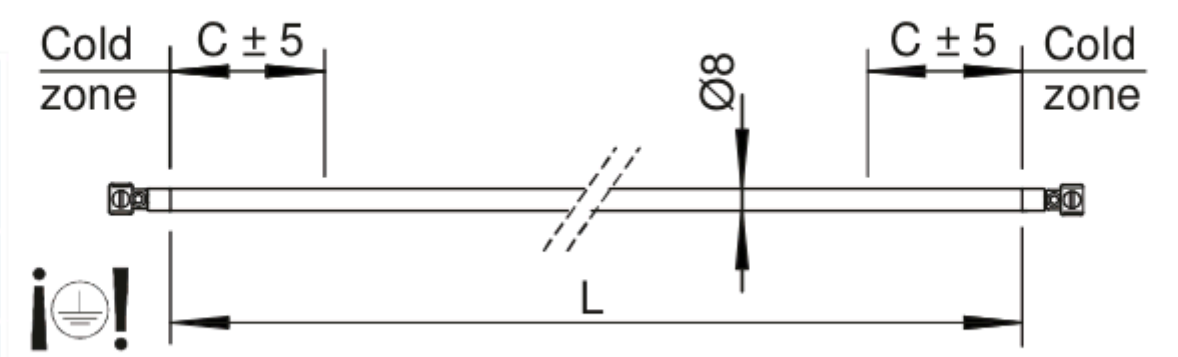
Dimensions of the M12x1'25 crimped connector



Material: Nickered steel

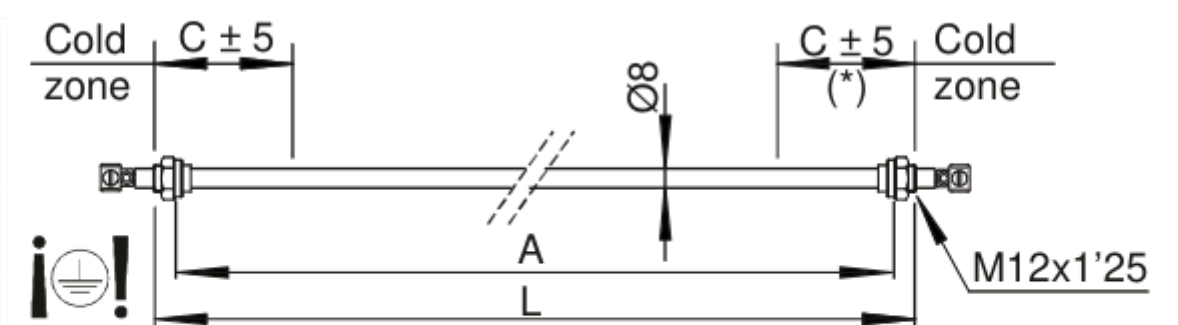
Models REINF

Code	Dimensions in mm		Watts	W/cm ²	Electricfor's constructive thermic class	Weight in Kg
	C	L				
REINF460	50	460	500	5,7	T-700-T	0,10
REINF960	50	960	1000	4,7	T-700-T	0,20



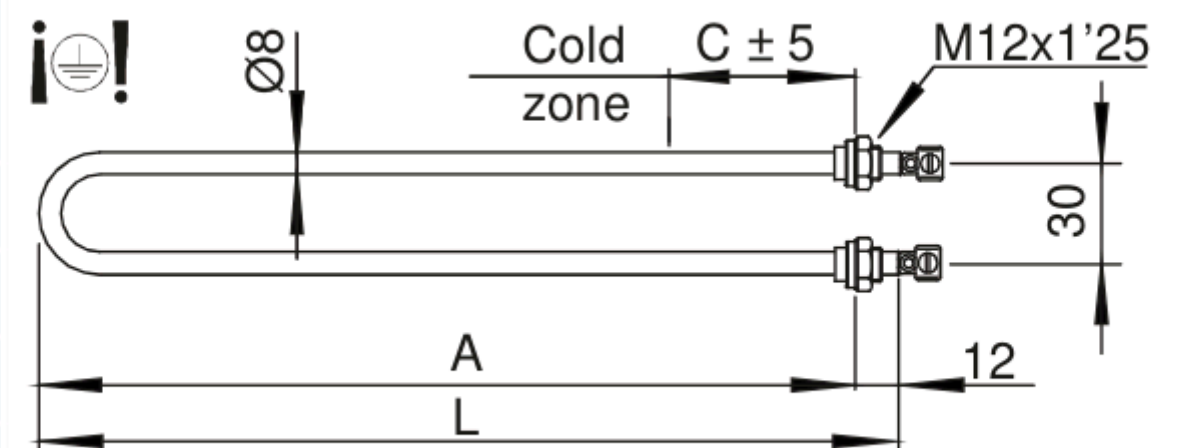
Models R

Code	Dimensions in mm			Watts	W/cm ²	Electricfor's constructive thermic class	Weight in Kg
	A	C	L				
R762	738	45	762	500	3	T-700-T	0,20
R1092	1068	45	1092	750	3,1	T-700-T	0,26
R1422	1398	45	1422	1000	3,1	T-700-T	0,34
R2092	2068	45	2092	1500	3	T-700-T	0,49



Models U

Code	Dimensions in mm			Watts	W/cm ²	Electricfor's constructive thermic class	Weight in Kg
	A	C	L				
U365	365	45	377	500	3	T-700-T	0,20
U530	530	45	542	750	3,1	T-700-T	0,26
U695	695	45	707	1000	3,1	T-700-T	0,34
U1030	1030	45	1042	1500	3,1	T-700-T	0,49
U1365	1365	45	1377	2000	3,1	T-700-T	0,58



Models Mx360

Code	Dimensions in mm					Watts	W/cm ²	Electricfor's constructive thermic class	Weight in Kg
	A	B	C	D	L				
M4360	360	330	45	90	372	1000	3,1	T-700-T	0,34
M6360	360	330	45	150	372	1500	3,1	T-700-T	0,49
M8360	360	330	45	210	372	2000	3,1	T-700-T	0,58
M12360	360	330	45	330	372	3000	3	T-700-T	0,89

